

WHAT IS CLAIMED IS:

1. A method for enabling a virtual network between a first processor and a second processor using at least one additional processor separate from the first and second processors, said method comprising the steps of:
 - 5 determining, at the at least one additional processor, a first virtual address that identifies the first processor in the virtual network;
 - providing the determined first virtual address to the first processor;
 - requesting, from the at least one additional processor, a tunnel between the first processor and the second processor;
- 10 authenticating, at the at least one additional processor, the request based on the first virtual address;
 - determining, at the at least one additional processor, a second virtual address that identifies the second processor in the virtual network; and
 - providing the second virtual address to the first processor to enable the requested tunnel between the first and second processors, when the at least one additional processor authenticates the request and determines that the first and second processors have indicated a mutual consent for enabling one or more tunnels between the first and second processors.
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2. The method of claim 1, further comprising the steps of:
 - establishing at least one of the enabled tunnels between the first and second processors based on the provided first and second virtual addresses;
 - requesting, from the at least one additional processor, a modification to
- 5 the at least one established tunnel between the first and second processors;
 - determining, at the at least one additional processor, at least one command for performing the requested modification;
 - providing the at least one command to the first processor; and
 - executing, at the first processor, the at least one command to perform
- 10 the requested modification to the at least one established tunnel.

3. The method of claim 2, further comprising the steps of:
 - determining, at the at least one additional processor and based on the requested modification, information for routing one or more packets through the at
 - 15 least one established tunnel.

4. The method of claim 3, further comprising the step of:
 - providing, to the first processor, the determined information such that
 - the first processor routes one or more packets through the at least one established
 - 20 tunnel based on the determined information.

5. The method of claim 1, further comprising the steps of:
 - establishing at least one enabled tunnel between the first and second processors based on the provided first and second virtual addresses;
 - receiving information indicating performance of the at least one established tunnel between the first and second processors; and
 - providing the received information to the at least one additional processor such that performance of the at least one established tunnel is monitored at the at least one additional processor.
- 10 6. The method of claim 5, wherein the step of receiving information indicating performance of the at least one established tunnel comprises the step of:
 - receiving information indicating a latency of one or more packets flowing through the at least one established tunnel.
- 15 7. The method of claim 5, wherein the step of receiving information indicating performance of the at least one established tunnel comprises the step of:
 - receiving information indicating a bandwidth of the at least one established tunnel.

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8. The method of claim 1, wherein the step of determining the first virtual address comprises the steps of:

determining, for the first processor, an address that is routable in a base network interfacing the first and second processors; and

5 determining the first virtual address based on the address that is routable in the base network.

9. The method of claim 8, wherein the step of determining the first virtual address based on the address that is routable in the base network comprises the

10 steps of:

selecting a portion of the address that is routable in the base network;
and

determining the first virtual address such that the first virtual address includes the selected portion.

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10. The method of claim 8, further comprising the step of:

establishing at least one of the enabled tunnels through the base network interfacing the first and second processors based on the provided first and second virtual addresses.

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11. The method of claim 10, wherein the step of determining the second virtual address establishing at least one of the enabled tunnels through the base network comprises the steps of:

determining, for the second processor, a base address that is routable
5 in the base network interfacing the first and second processors; and

determining the second virtual address based on the base address; and
establishing the at least one of the established tunnels based on the determined base address.

10 12. The method of claim 8, further comprising the step of:

establishing the one or more enabled tunnels through the base network based on the provided first and second virtual addresses.

13. The method of claim 1, wherein the step of determining the first virtual
15 address comprises the step of:

determining the first virtual address based on a predetermined range of addresses.

20 14. The method of claim 1, wherein the step of requesting the tunnel from the first processor to the second processor comprises the step of:

providing, to the at least one additional processor, a name identifying the second processor.

15. The method of claim 14, wherein the step of determining the second virtual address that identifies the second processor comprises the step of:

determining, at the at least one additional processor, the second virtual address based on the provided name identifying the second processor.

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16. The method of claim 1, further comprising the steps of:

determining, at the at least one additional processor, a key unique to the first processor and the at least one additional processor for encrypting information when the first processor and the at least one additional processor communicate with

10 each other; and

providing the key to the first processor

17. A system for enabling a virtual network between a first processor and a second processor using at least one additional processor separate from the first and second processors, said system comprising:

- a tunneling interface that receives a request for a tunnel between the
- 5 first processor and the second processor; and
- a controller that determines a first virtual address that identifies the first processor in the virtual network, provides the determined first virtual address to the first processor, authenticates the request based on the first virtual address,
- determines a second virtual address that identifies the second processor in the virtual
- 10 network, and provides the second virtual address to the first processor to enable the requested tunnel between the first and second processors, when the controller authenticates the request and determines that the first and second processors have indicated a mutual consent for enabling one or more tunnels between the first and second processors.

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18. An apparatus for enabling a virtual network between a first processor and a second processor using at least one additional processor separate from the first and second processors, said apparatus comprising:

- means for determining, at the at least one additional processor, a first 5 virtual address that identifies the first processor in the virtual network;
- means for providing the determined first virtual address to the first processor;
- means for requesting, from the at least one additional processor, a tunnel between the first processor and the second processor;
- 10 means for authenticating, at the least one additional processor, the request based on the first virtual address;
- means for determining, at the at least one additional processor, a second virtual address that identifies the second processor in the virtual network; and
- means for providing the second virtual address to the first processor to 15 enable the requested tunnel between the first and second processors, when the at least one additional processor authenticates the request and determines that the first and second processors have indicated a mutual consent for enabling one or more tunnels between the first and second processors.

19. A computer program product for enabling a virtual network between a first processor and a second processor using at least one additional processor separate from the first and second processors, said computer program product comprising code, said code comprising:

5 code for determining, at the at least one additional processor, a first virtual address that identifies the first processor in the virtual network;

code for providing the determined first virtual address to the first processor;

code for requesting, from the at least one additional processor, a tunnel 10 between the first processor and the second processor;

code for authenticating, at the least one additional processor, the request based on the first virtual address;

code for determining, at the at least one additional processor, a second virtual address that identifies the second processor in the virtual network; and

15 code for providing the second virtual address to the first processor to enable the requested tunnel between the first and second processors, when the at least one additional processor authenticates the request and determines that the first and second processors have indicated a mutual consent for enabling one or more tunnels between the first and second processors.